ENVIRONMENTAL NEWS

Newsletter of the N.H. Department of Environmental Services November/December 2008

Governor's Message

Recognizing green businesses

Our environment – from our breathtaking landscapes to our clean water – is part of what makes New Hampshire such a special place to work and live. That is why as Governor, I have made it a priority to protect and preserve the state's environment.

Governor Lynch

A major focus of our efforts has been encouraging businesses to reduce their energy consumption through efficiency and investing in alternative, renewable energy sources. Many New Hampshire businesses understand the importance of "going green," which helps protect our environment, and increase the bottom line.

As a state, it is important that we continue work with the business community to promote greater energy efficiency, a reduction of waste and other green business practices.

Since 1994 the New Hampshire Pollution Prevention Program has recognized companies that demonstrate sound environmental practices through the Annual Governor's Award for Pollution Prevention. These businesses have discovered that environmentally friendly practices have

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Municipal recycling & the costs of waste disposal

By Donald E. Maurer, Supervisor, Solid Waste Technical Assistance

Each year, Solid Waste Technical Assistance publishes the recycling rates for each of the towns and cities that supply data through their Annual Facility Reports. This data, which can be accessed at www.des.nh.gov/organization/divisions/waste/swrtas/documents/rec_mun.pdf, has generated a great deal of interest from the press and from the towns as they compare their rates with their neighbors. This year, for the first time, we are also publishing the budget line items for solid waste handling and disposal. This information, gleaned from town reports and from information provided by the

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Commissioner's Column

In the event of another flood ...

It was just over three years ago, in October 2005, when New Hampshire was hit with one of its worst floods in recent memory, causing seven fatalities, over $15 million in damage to public infrastructure, and additional loss of or damage to approximately 500 homes in communities in southwestern New Hampshire. Just seven months later, the so-called Mother's Day flood of May 2006 deluged communities in southern and southeastern New Hampshire, causing the loss of or damage to over 8,000 homes, and over $18 million in damage to roads, bridges and other public facilities. This was only to be followed less than a year later by the floods of April 2007, which caused $29 million in damage to public property in addition to damage to 2,000 homes in many of the same communities previously affected by the Mother's Day flood.

In response to the high frequency and the magnitude of these floods, the governor and legislature initiated efforts to determine how damages could be reduced from future floods. In the days following the April 2007 flood, the gover-

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Commissioner

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nor directed DES to enlist the help of independent experts to review the state's dam and water release policies and provide recommendations for improving water management procedures and dam operations to reduce the impacts from future flooding. The result of the governor's directive was a $330,000 study, funded by the Federal Emergency Management, and performed by an independent consultant. The report of that study entitled *Independent Evaluation of Recent Flooding in New Hampshire* was released in July and is available at the DES website at www.des.nh.gov/organization/divisions/water/dam/documents/flood_report_nh_flooding_analysis.pdf.

At the same time, the New Hampshire Legislature enacted HB 648 (Chapter 179, Laws of 2007), which established a flood commission to develop a comprehensive flood management plan for New Hampshire to reduce flood impacts on communities and individual properties. Members of the commission included state legislators, representatives of federal and state agencies, including DES, as well as representatives of local government; agricultural, water supply and hydroelectric interests; and environmental groups. The commission released its final report in September, a copy of which is available on the General Court's website at www.gencourt.state.nh.us/statstudcomm/reports/1853.pdf.

Both of these efforts have arrived at similar conclusions and recommendations. First, we need to be aware that flood events as large as and larger than those we have experienced over the past three years are likely to happen in the future. Significant flooding has occurred during past flood events dating back to the 1930s, but there is mounting evidence that the frequency of major flood events is increasing. In its 2008 report entitled *Weather and Climate Extremes in a Changing Climate*, the National Climatic Data Center of the National Oceanic and Atmospheric Administration concluded that "we are now witnessing and will increasingly experience more extreme weather and climate events." The state and its communities must plan accordingly.

Second, the ability of dams and dam management to control floods is limited. While storing waters in the region's lakes, ponds, and reservoirs, and coordinating dam operations can help reduce minor local flooding, it cannot prevent widespread flooding from events like the May 2006 and the April 2007 events. Only 45 of the 3,070 dams in the state have available storage for flood control. While these dams, many of which were built by the U.S. Army Corps of Engineers in the 1940s and '50s and the U. S. Department of Agriculture in the '70s and '80s, have reduced flood stages in communities located downstream, they have not eliminated damage in low-lying, flood prone areas. The construction of additional flood control dams is not likely to be an economically feasible way of reducing damages from future floods since the cost of designing and constructing these projects is vastly greater now, the environmental impacts are significant, and these projects require large-scale property acquisition, eminent domain action, and population relocation.

The most cost-effective way we can reduce future flood damages in the state is through proper landscape management. We need to work with communities to limit the extent to which land cover is made more impermeable with more roofs, road and parking lots, which increases the amount of stormwater runoff that occurs during rainfall events. More importantly, we need to keep people, buildings and infrastructure out of harm's way by discouraging development in flood prone areas. In New Hampshire, many of the floodplains adjacent to the rivers and streams are still relatively undeveloped. By limiting future development in these areas, we will not only prevent future flood losses, but we will also be able to preserve the natural and beneficial functions of the floodplains.

Finally, residents of low-lying areas can take preventive measures to protect against flood damage by means of various measures, including raising buildings on their foundations and proper storage of equipment, hazardous materials and irreplaceable personal possessions. Information on such preventive measures is available on the DES website at www.des.nh.gov, search key word "flood safety."

We can expect to see future flooding events in New Hampshire, but by working together on smart development practices, and making structures and property less vulnerable to high water levels, we can reduce the overall human, economic and environmental losses that such flooding may inflict.

Tom Burack, *Commissioner*

ENVIRONMENTAL NEWS

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The silver lining to this summer's rainy weather: Better air quality!

New Hampshire experienced a decrease in the number of poor air quality days this summer, based on EPA's 2008 revised ozone standard. According to data collected by DES between April and September, there were ten days when ozone monitors recorded concentrations in the unhealthy for sensitive group range, compared to 22 days in 2007. Throughout New England, there were 28 unhealthy days this season, compared to 53 in 2007.

All exceedance comparisons have been adjusted to reflect the revised ozone standard of 0.075 parts per million (previous standard was 0.08 ppm). EPA revised the standard in 2008 to be more protective of public health. Concentrations of ground-level ozone, the main ingredient of smog, are considered unhealthy when they exceed 0.075 ppm over an 8-hour period. The highest 8-hour average this summer was 0.087 ppm recorded at Miller State Park in Peterborough on June 10.

Pollution transported into the state from our south and west is a main cause of elevated ozone levels in the state. Since strong sunlight is necessary for the production of ground-level ozone, the extended periods of rainfall we experienced this summer limited the production of ozone in the air. The decrease in the number of days with unhealthy air quality is also attributed to a longer-term decline in emissions of pollutants that cause ground-level ozone, namely nitrogen oxides and volatile organic compounds.

Fine particle pollution is also a health concern throughout the year. Though officially there were no unhealthy days this summer, concentrations of fine particles reached unhealthy levels on two days last January, affecting the most sensitive populations. Similar to ozone, fine particles are transported into New Hampshire from upwind sources. Additional sources of fine particle pollution include cars, trucks and home heating devices.

To find out current ozone and fine particle pollution levels and daily air quality forecasts, visit the DES website at www.airquality.nh.gov. If you would like to have daily air quality forecasts emailed directly to you, sign up for EnviroFlash at www.enviroflash.info/. Even though ozone season is over, DES continues to monitor air pollutant levels at numerous locations throughout the state and issues daily air quality forecasts year round. ■

EPA's Performance Track gets results, DES joins in

In 1999, the EPA developed the National Environmental Performance Track program to encourage public and private facilities to make environmental improvements above and beyond those required by law and to publicly recognize those who do. Ever since, New Hampshire has been a leader in per capita membership in Performance Track, and DES has been an active supporter.

Members voluntarily collaborate with EPA to make environmental improvements that are desirable to all parties. Up to 2006 (the most recent numbers available), New Hampshire Performance Track members' accomplishments include:

- Reducing greenhouse gasses by 769,000 tons (equivalent to removing 141,620 cars for a year).
- Reducing non-hazardous waste generated by 10,872 tons (equivalent to 315,000 houses for a year).
- Conserving 4,100 acres of land.

New Hampshire's Performance Track members include: BAE Systems; Newport Computer Service Inc.; Henkel Corp.; Monadnock Paper; NH Ball Bearings, Hi-Tech Div. ; NH Ball Bearings, Astro Division; Osram Sylvania Products Inc.; Vectron International; USPS Manchester Vehicle Maintenance Facility; and USPS Portsmouth Processing and Distribution Facility.

Now DES is joining EPA and about two dozen other states in offering an analogous program called Green Leaders. We will use the power of recognition to get better performance on very important areas that we do not regulate, such as greenhouse gases, energy use and waste minimization.

Green Leaders is a follow-on to DES's existing Aspiring Leaders program, but unlike Aspiring Leaders, which is open to everyone, Green Leaders is for those organizations that have shown that they manage their environmental affairs reliably and comprehensively and have a record of accomplishment. Both programs are part of DES's comprehensive Environmental Leadership Initiative.

For more information, contact Bob Minicucci at (603) 271-2941, or environmentalleadership@des.nh.gov. More information is at www.des.nh.gov; A-Z list; "Environmental Leadership Initiative. ■

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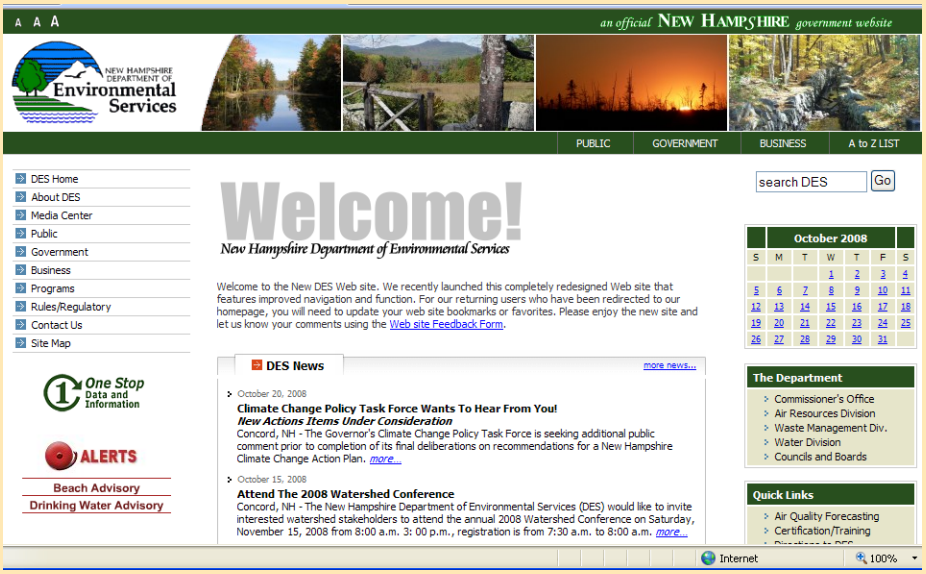

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Red Tags catch wanted attention

by Alexandrea Castino, DES Legal Intern

DES recently installed "red tags" at two New Hampshire underground storage tank facilities. "Red tags" are an UST program enforcement action that prohibits the delivery of petroleum to underground tanks that are not in substantial, operational compliance with state UST rules, Env-Wm 1401. The two facilities, J&S Gas in Nashua and the Tilton Quick Mart in Tilton, have a long history of non-compliance with the UST rules.

A facility or UST system that is red-tagged may continue to use or dispense product, but the tanks may not be refilled until the facility is substantially compliant with the UST rules and the red tags are removed by DES. Delivery prohibition is an enforcement tool specific to UST facilities adopted by statute (146-C:14 to 146-C:16) and mandated by the Federal Energy Policy Act of 2005.

DES has issued 10 "Notice of Intent to Red Tag" letters and installed red tags on 24 tank systems throughout the state thus far. The UST program is very pleased with the timeliness and compliance incentive offered by delivery prohibition. It has proved to be a quicker and more effective process than traditional enforcement methods. Many facility owners are resolving non-compliance issues with a new sense of urgency after receiving notice of intent letters and being red-tagged.

Of the active facilities red-tagged, six came into compliance within a few days of being tagged and the remaining three are currently being corrected. Fact sheet WMD-REM-27 provides more information on red tags, and may be found at www.des.nh.gov/organization/commissioner/pip/factsheets/rem/documents/rem-27.pdf. ■

Change the World, Start with Energy Star

Businesses and individuals can show their support for New Hampshire's commitment to saving energy and protecting the environment by joining a new energy-saving campaign. Formerly called the Change a Light campaign, Change the World, Start with Energy Star is a national EPA campaign, which encourages all Americans to take small steps that make a big difference in the fight against global warming.

The cornerstone of the campaign is the Energy Star pledge. The pledge challenges people to change at least one light bulb to an Energy Star qualified bulb. It also asks people to make additioanl energy-efficient choices at home and at work to save money and reduce greenhouse gases. The pledge this year includes improving home heating and cooling systems, making sure your home is well sealed and insulated, choosing Energy Star qualified products, and enabling power management settings on computers and monitors.

During previous campaign years, 9,638 individuals in New Hampshire took the pledge, resulting in an energy savings of 10,598,570 kWh, a cost savings of over $1.24 million, and a reduction of greenhouse gases of more than 6.9 million pounds! To take the pledge, go to www.energystar.gov/index.cfm?fuseaction=globalwarming-.showPledge. Groups, businesses and organizations can set a pledge goal and become a "pledge driver" for the 2008-2009 campaign year.

To learn more, contact Kathleen Brockett, DES, at (603) 271-6284 or kathleen.brockett@des.nh.gov, or visit EPA's website at www.energystar.gov/changetheworld. ■

Environmental public health tracking database on-line

by Laura Holmes, DHHS Division of Public Health Services

The New Hampshire Environmental Public Health Tracking Program (EHPT) is a cooperative effort of the departments of Health and Human Services and Environmental Services to combine the resources and talents of two agencies in order to promote efficient information sharing between public health and environmental resources. The EPHT Program has been hard at work with the Centers for Disease Control and 16 other EPHT grantees building the Environmental Public Health Tracking Network, a nationwide effort to bring together data from state and local surveillance and monitoring systems to track environmental hazards, exposures, and the diseases they may cause.

Today the EPHT Program announces the completion of an important milestone: the development of nationally consistent data measures for three key environmental health indicators: asthma hospitalizations, acute myocardial infarction hospitalizations, and contaminants in public drinking water. These measures, generated by the EPHT Program, were transferred securely to the national Tracking Network at CDC via the Public Health Information Network and made available to the public on the HealthWRQS website, www.nhhealthwrqs.org.

Since 2006 EPHT grantees have been building the Tracking Network from the ground up: planning, designing, developing and implementing standardized information technology, indicators, data measures and messages that form the foundation of the network.

Indicators being tracked by the EPHT network focus on health data that show the rates of certain chronic diseases or conditions, hazard data that tell us about pollutants that may be found in the environment, and exposure data that tell us about certain chemicals found inside people's bodies. By 2010 the network will continuously track asthma hospitalizations, myocardial infarction hospitalizations, cancer, birth defects, vital statistics, key contaminants in public drinking water, air pollution, and childhood blood lead levels.

The national Tracking Network uses these measures to monitor broad environmental public health trends that are relevant across the entire country, while state networks monitor state and community-level trends. Information from the network can assist public health practitioners in identifying and targeting effective public health interventions, advance public health research, and help local, state and federal agencies and policymakers to develop and evaluate actions that improve public health.

Both the national and New Hampshire EPHT networks are scheduled to launch in February – so stay tuned!

For more information, contact Laura Holmes, Program Specialist, (603) 271-1604, LHolmes@dhhs.state.nh.us. ■

The Municipal EcoLink

An e-bulletin from the
NH Department of Environmental Services

Do you represent a municipality or local government entity? DES recently launched *Municipal EcoLink*, a monthly e-bulletin designed to inform you of the latest environmental ideas, trends, grants, rules and more from Environmental Services. To subscribe, please go to www.des.nh.gov, click on the e-news icon, and under "newsletters," choose *Municipal EcoLink*.

Int'l Coastal Cleanup Day

Volunteer Janet Olmstead holds up "the catch of the day" on Hampton Beach on September 20. She was one of approximately ***1,500 New Hampshire volunteers*** *who removed about 6,000 pounds of trash on International Coastal Cleanup Day on September 19 (student day) and 20, making it a record breaking success. The Blue Ocean Society for Marine Conservation coordinated New Hampshire's cleanup at over 25 Seacoast sites with Coastal Program funding support. Marine debris threatens wildlife and is potentially dangerous to humans recreating on the beach. In 2007, over 380,000 volunteers in 76 countries participated in the event, which is coordinated worldwide by the Ocean Conservancy. Volunteers record what they find on data cards, helping to track trends in marine debris around the world.*

Hot off the press!

Innovative Land Use Planning Techniques, the handbook for sustainable development, just became available in hard copy. Prepared by DES in partnership with NH Association of Regional Planning Commissions, NH Office of Energy and Planning, and NH Local Government Center, this handbook will be invaluable to communities around the state as they face the challenges of growth and maintaining a desirable quality of life. The authors have written the guide with the Regional Planning Commissions' principles for good planning in mind, and organized the planning guide into four general categories: prosperity, sustainability, livability and mobility. To learn more, go to www.des.nh.gov and type "innovative land use" in the search tool. ■

A perfect fall day. Photo by Julie Joslin, DES Laboratory.

Recycling Rates

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Local Government Center, should also generate some discussion.

For 2007 the overall state recycling rate is 20.4 percent, essentially the same as last year, and the total cost for those municipalities for which we have data is over $104 million. That averages out to $86.22 per person for the state's municipalities to dispose of garbage. Costs recovered by sale of recyclables and fees collected for certain types of waste offset that but it still represents a very large cost. If you approximate the cost of commercial waste disposal, the estimate of the solid waste business in New Hampshire is about $290 million. Coupled with the fact that there are about 5,000 people employed in the solid waste industry in New Hampshire, we are talking about a very large business indeed.

A quick calculation says that for each 1 percent increase in recycling rates, municipalities would save an aggregate $1 million. That would buy a lot of asphalt, or salt, or perhaps even reduce a tax rate. What could help? Municipalities could encourage recycling by using proven incentive techniques like pay-as-you-throw or simplify recycling by offering single stream pick-up of recyclables. Educating the public as to which materials can be recycled would also help. For example, 34 percent of the waste stream is paper, but nationally, only 51 percent of the available paper is recycled. In New Hampshire, we are only collecting about 30 percent of the paper at the municipal level. Simply, if you can tear it, you can recycle it. The demand for scrap paper overseas is tremendous and we cannot continue to waste this valuable export item. Paper recycling is one area where each of us can make an immediate difference.

Plastic bottle recycling is still low. Nationally, the overall rate for plastic beverage bottles is about 27 percent. With over 3 billion pounds of plastic used in bottles each year, this represents a considerable amount of oil being placed in landfills. Yes, those bottles represent oil, and at the ever-fluctuating price of oil, we are throwing away money. Plastic bottles are now worth about $0.18 per pound when recycled.

As an old advertising campaign reminds us, "Every litter bit hurts." For more information, please go to the SWTAS web site from www.des.nh.gov. ■

www.des.nh.gov

Johnson and D'Agostino receive national recognition

Sara Johnson and Stephanie D'Agostino of the DES Planning, Prevention and Assistance Unit were both recently honored by the National Pollution Prevention Roundtable at its annual meeting and awards ceremony held in Washington, DC.

Sara Johnson was named this year's recipient of the Most Valuable Pollution Prevention (MVP2) awards Volunteer of the Year. Sara is an active member of the National Pollution Prevention Roundtable (NPPR). She

DES's Stephanie D'Agostino (center left) and Sara Johnson (center right) display their well-deserved awards at the recent Natioanl Pollution Prevention Roundtable annual meeting.

serves as a member of the NPPR Board, chair of the Membership Committee, NPPR's Board liaison to the Tribal Workgroup, and is a member and assistant moderator for the Summit Planning Committee. Sara has contributed throughout her career by setting a pollution prevention vision and strategies, and leading and directing pollution prevention programs.

The New England Mercury Task Force, of which Stephanie D'Agostino is co-chair, was one of this year's recipients for the Most Valuable Pollution Prevention (MVP2) award for its work on mercury reduction. The New England Mercury Task Force, one of five projects to be honored by the National Pollution Prevention Roundtable, is part of a northeast regional initiative to reduce mercury in the environment. States involved in the Task Force include the six New England states, New Jersey and New York. The northeast states are achieving significant and rapid reductions in mercury releases from in-region pollution sources, and are beginning to see indications that these reductions are resulting in lower accumulated mercury levels in the environment.

Congratulations Sara, Stephanie and the Planning, Prevention and Assistance Unit for your excellent work. ■

Superior Court orders Windsor man to pay $100,000 in penalties

The Hillsborough County Superior Court, Northern District, ruled on October 23, 2008 that George Brooks, of Windsor, N.H., must pay penalties in the amount of $100,000 for discharging oil and gasoline that resulted in severe contamination of the groundwater at his property.

The court ordered Brooks to immediately cease and desist from repairing or salvaging any vehicles or tanks of any kind on his property, and from undertaking any activity that may result in a discharge of oil, gasoline, or other hazardous materials. The ruling also requires that Brooks cease burning any material other than leaves, brush or untreated wood. The ruling comes in a civil enforcement action filed by the State in September 2007.

George Brooks owns a parcel of land in Windsor adjacent to Route 31. Over the past ten years, Brooks failed to use proper oil and gasoline management practices in the operation of his salvage yard business. This failure resulted in the contamination of the groundwater at the site with benzene, MtBE and other chemicals. Brooks also illegally used burn barrels to recover scrap metal from sources, including insulated wire.

"This decision sends a message to all salvage yard operators that they must comply with state law and DES rules, or risk civil penalties," said Commissioner Tom Burack.

"This office will continue to actively enforce violations of the State's groundwater protection laws, which serve to protect the public's health and the environment," said Attorney General KellyAyotte.

For further information, contact Assistant Attorney General Evan J. Mulholland at (603) 271-3679. ■

A fall day at Rye Harbor. Photo by Spruce Wheelock, DES Waste Management Division.

Governor

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also made them more efficient, and therefore, more profitable.

Two companies that received the top pollution prevention award for 2008 were Anheuser-Busch Inc. of Merrimack, and Southeastern Container of Hudson.

Anheuser-Busch installed a Bio-Energy Recovery System to pre-treat brewery wastewater and to produce biogas for use as a supplemental fuel. As a result, this innovative project significantly reduced boiler fossil fuel purchases, reduced air emissions by 178 metric tons and eliminated process equipment that was energy inefficient, saving 1 million kilowatt hours.

Southeastern Container in Hudson produces 20-ounce and 2-liter plastic bottles for the Coca-Cola bottling facilities in the Northeast. As part of a corporate strategy to reduce the plant's environmental footprint in the areas of energy, raw material and natural resource usage, Southeastern Container initiated the Plant Environmental Program. Implementing this program resulted in a dramatic drop in raw material demand. The projects also resulted in a decrease of nearly 2 million pounds of carbon dioxide emissions and 1.6 million kilowatt hours in just a five-month period.

In addition to these top two winners, four companies received honorable mention for completing substantial pollution prevention initiatives. Those companies are: FCI USA Inc. of Lincoln; Goss International Americas Inc. of Durham; Symmetry Medical PolyVac of Manchester; and Wire Belt Company of America in Londonderry.

We congratulate all of the award winners for their commitment to green energy practices, and for helping to do their part to protect our environment.

John Lynch, *Governor*

For more information about the Governor's P2 Award or about pollution prevention in general, please contact Tara Goodrich, DES, at (603) 271-0878 or tara.goodrich@des.nh.gov.

Farmers market. Photo by Paul Lockwood, DES.

Fun, interactive website helps to identify ways to reduce your carbon footprint and save money

The New Hampshire Carbon Challenge has developed a cool tool, the *New England Carbon Estimator*, to help people identify actions they can take at home to reduce energy consumption, costs and greenhouse gas emissions. The calculator gives estimates (tailored to each household) of what savings might be expected as actions that reduce energy usage are selected.

"Take the Challenge," and join the many homeowners throughout New England who are reducing their energy costs and environmental impact. It takes about 15-20 minutes to use the Carbon Estimator and take the challenge. The average savings per household is $840 per year.

The project was developed by the University of New Hampshire and the above information is taken from the New Hampshire Carbon Challenge website, http://carbonchallenge.sr.unh.edu/calculator.jsp. ■

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